



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1430
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,868	09/04/2001	Paul Morgavi	032326-163	4219

21839 7590 02/22/2007
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

GARCIA, GABRIEL I

ART UNIT	PAPER NUMBER
----------	--------------

2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/914,868

Applicant(s)

MORGAVI, PAUL

Examiner

Gabriel I. Garcia

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-23 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Part III² DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 7, 14 and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lo (5,657,111).

With regard to claim 1, Lo teaches a method for graphic printing (e.g. fig. 1) on at least one card medium (110); comprising: at least one ink jet head (inherently reads on col. 2, lines 5-31); a computer aided vision device having at least one video camera for dynamic discrimination between areas on a surface of the card medium in which printing is to be performed and areas on a surface of the card of the card medium I which is to be performed and areas in which printing is not to be performed (e.g. col. 2, line 62 thru col. 62 thru col. 3, line 3, the video camera detects areas with information and without information); and means for controlling the head to implement ink jet printing on the areas of the card medium in which is to be performed, in accordance with information provided by the video camera (e.g. abstract, and col. 2 line 62 thru col. 3, line 31, and col. 3, lines 32-45).

With regard to claim 2, Lo further teaches wherein the card medium is made of plastic, and the inks used are capable of being cross linked by radiation (e.g. reads on the lenticular material which is radiated with heat to print ink of different colors).

With regard to claim 3, Lo further teaches wherein the card medium is made of cardboard or paper, and the inks used are aqueous, phase-change or solvent based (e.g. the lenticular material can be use in a cardboard or paper, and the inks used in the printing of 3D images are aqueous).

With regard to claim 7, Lo further teaches wherein the support element comprises a flat conveyor (see figs. 1-3).

With regard to claim 14, Lo further teaches including means for cross linking the ink at the end of printing (e.g. the lenticular material can be use in a cardboard or paper, and the inks used in the printing of 3D images are cross linking the different inks).

With regard to claim 16, Lo discloses a machine according to claim 1, wherein said Control means controls the print head to print in accordance with geometric and/or positioning parameters extracted beforehand from each card to be printed (e.g. col. 2, line 62 thru col. 62 thru col. 3, line 3, the video camera detects areas with information and without information, the discrimination of the areas to be printed are determined before printing of data).

With regard to claim 17, Lo discloses a machine according to claim 11, wherein another one of said print heads is a monochrome head (e.g. col. 3, lines 14-36).

With regard to claim 18, Lo discloses a machine according to claim 14, wherein said cross-linking is performed by means of an ultraviolet lamp (inherently reads on the

Art Unit: 2625

lenticular sheet obtained by covering, with the film, a UV- (ultraviolet-) or EB- (electron beam-) curable resin poured into a mold in a shape reverse to the shape of the transparent lenses, and applying ultraviolet rays or electron beams to the UV- or EB- curable resin).

With regard to claims 20-23, the limitations of claim 20-23 are covered by the limitations of claims above.

2. Claims 6 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) in view of Mc Cannel (US patent 6,173,901).

Regarding claim 6, Lo does not disclose a machine according to claim 1, further including a support element for receiving a plurality of cards to be printed and transporting said cards past the head of the machine for continuous printing. Mc Cannel discloses this limitation in Fig. 1. Lo and Mc Cannel are combinable because they are from the same field of endeavor that is printing images on a substrate like a card or a sheet.

At the time of invention it would have been obvious to a person ordinary skill in the art to use Mc Cannel for providing a support system for receiving plurality of cards.

The motivation to do so would have been to provide online storage of card in preparation for printing and encoding and providing the system of Lo with the ability to process multiple cards continuously.

Therefore it would have been obvious to combine Lo and Mc Cannel to obtain the invention as specified in claim 1.

Regarding claim 9, Mc Cannel discloses a machine according to claim 6, wherein the support element is perforated, and includes a suction device to hold the cards while it is moving (Fig. 1, column 3, lines 41-46).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) as applied to claim 1 above, and in further view of Klinefelter (US patent 6694,884).

Regarding claim 8, Lo does not disclose a machine according to Claim 6, wherein the support element comprises a drum. Klinefelter discloses rollers 34 in Fig. 1 to meet this limitation. Lo and Klinefelter are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to reduce the length of the machine by eliminating a long conveyor belt. Therefore it would have been obvious to combine Lo and Klinefelter to obtain the invention as specified in claim 8.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) as applied to claim 1 above and in further view of Kobayashi (US patent 5,771,058).

Regarding claim 10, Lo does not disclose a machine according to

Art Unit: 2625

Claim 6 wherein the support element comprises a drum. Kobayashi discloses rollers 34 in Fig. 1 to meet this limitation. Lo and Kobayashi are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to use the same printing machine to print on the back of the card.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) as applied to claim 1 above, and in further view of Greive (US patent 6,189,684).

Regarding claim 11, Lo does not disclose a machine according to Claim 6, comprising a number of print heads aligned along the direction of movement of the support element and facing said support element, at least one of which is a color print head for printing images of the photographic or colored type. Greive discloses in column 1, lines 22-31, print heads for color printing. Lo and Greive are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use number of print heads for color printing.

The motivation to do so would have been to use a separate head for each primary color. Therefore it would have been obvious to combine Lo and Greive to obtain the invention as specified in claim 11.

6. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) as applied to claim 1 above, and in further view of Wismer (US patent 4,070,497).

Lo does not disclose a machine according to claim 1, further including means for converting the ink into gel during printing by wavelength modulation, at a distance from the card. Wismer discloses this limitation in column 6, lines 24-28. Lo and Wismer are combinable because they are from the same field of endeavor that is printing on a substrate. At the time of invention it would have been obvious to a person ordinary skill in the art to use UV light (for wave length modulation) to gel the ink.

The motivation to do so would have been to prevent the ink from curing and allowing application of another coating (column 1, lines 57-59). Therefore it would have been obvious to combine Lo and Wismer to obtain the invention as specified in claim 12.

Regarding claim 13, Wismer discloses a machine according to claim 12, wherein said means for converting the ink to gel comprise an optical fiber placed after each print head, connected to a light radiation source that emits UVC radiation (column 6, lines 24-28). Gelling ink after one print head can be applied to gelling the ink after several print heads.

Art Unit: 2625

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (5,657,111) as applied to claim 1 above, and in further view of Whistler (US patent 6,086,107).

Regarding claim 15, Lo does not disclose a machine according to claim 1, further including means for printing finishing material such as varnish, by ink jet, in accordance with geometric and/or positioning parameters of the card to be printed. Whistler discloses in claim 6 this limitation.

Lo and Whistler are combinable because they are from the same field of endeavor that is printing on a substrate. At the time of invention it would have been obvious to a person ordinary skill in the art to use finishing materials such as varnish to print on a substrate. The motivation to do so would have been to retain the printed ink. Therefore it would have been obvious to combine Lo and Whistler to obtain the invention as specified in claim 15.

Conclusion

8. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not teach or suggest (in combination with other features in the independent claim) does not teach a machine for graphic printing having the storage card and reader as described in claims 4 and 5.

9. Applicant's arguments filed 11/28/06 have been fully considered but they are not persuasive. With regard to Applicant's argument that Lo does not teach the use of an ink jet head to print the three-dimensional photographs. Examiner asserts that Lo inherently teaches the inkjet head to print three dimensional photographs (see col. 2, lines 3-51, which suggests the printer of Lo can be any printer that can print 3D images, the chemical processor (130) is used after the processed the image is printed (see col. 6, lines 3-16). With regard to Applicant's argument that Lo does not teach the computer aided vision device that detects features to the print medium, particularly areas on which printing is to be avoided. Examiner disagrees with Applicant's conclusion. Examiner asserts that the video device of Lo, allows the user to focus or control the video camera to select the appropriate area to print , and the video camera(s) are control by the computer (e.g. col. 3, lines 46-56).

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2625

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel I. Garcia whose telephone number is (571) 272-7434. The Examiner can normally be reached Monday-Thursday from 7:30 AM-6:00 PM. The fax phone number for this group is (571) 273-8300.

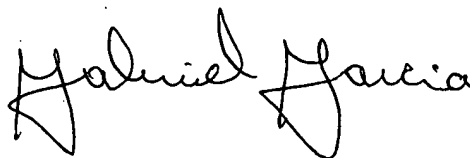
CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Gabriel I. Garcia

Primary Examiner

February 17, 2007



**GABRIEL I. GARCIA
PRIMARY EXAMINER**